

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 101318-1	<div style="display: flex; justify-content: space-between;"> <div>FOR FURTHER ACTION</div> <div>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</div> </div>	
International application No. PCT/SE 2005/000110	International filing date (day/month/year) 31 January 2005	(Earliest) Priority Date (day/month/year) 2 February 2004
Applicant ASTRAZENECA AB et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (see Box No. II)

3. ☐ Unity of invention is lacking (see Box No. III)

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

NOVEL PIPERIDINES AS CHEMOKINE MODULATORS (CCR)

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C07D 211/52, C07D 211/14, C07D 401/12, C07D 409/12, C07D 417/12,

A61K 31/445, A61K 31/4523, A61P 11/06, 19/02, 31/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C07D, A61K, A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN-CAPLUS, EPO-INTERNAL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 0162728 A1 (ASTRAZENECA AB), 30 August 2001 (30.08.2001), claim 1 --	1-14
X	WO 0162729 A1 (ASTRAZENECA AB), 30 August 2001 (30.08.2001), formula I --	1-14
A	WO 0220484 A1 (ASTRAZENECA AB), 14 March 2002 (14.03.2002), formula I --	1-14
X	WO 03068743 A1 (ASTRAZENECA AB), 21 August 2003 (21.08.2003), formula I --	1-14

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

13 May 2005

Date of mailing of the international search report

17-05-2005

Name and mailing address of the ISA/

Swedish Patent Office

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 0230899 A1 (NOVARTIS AG), 18 April 2002 (18.04.2002), claims 1-10 --	1-14
A	WO 03018556 A1 (ASTRAZENECA AB), 6 March 2003 (06.03.2003), claims 1-16 --	1-14
A	WO 9904794 A1 (MERCK & CO., INC.), 4 February 1999 (04.02.1999), formula I --	1-14
A	WO 0058305 A1 (ASTRAZENECA AB), 5 October 2000 (05.10.2000), formula I --	1-14
A	WO 0031033 A1 (F. HOFFMANN-LA ROCHE AG), 2 June 2000 (02.06.2000), examples 4-5 -- -----	1-14

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-4
because they relate to subject matter not required to be searched by this Authority, namely:
Claim 14 relates to a method of treatment of the human or animal body by surgery or by therapy, as well as diagnostic methods /Rule 39.1(iv). Nevertheless, a search has been executed for this claim. The search has been based on the alleged effects of the compounds.
2. ☒ Claims Nos.: 1-9
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Present claims 1-9 relate to compounds defined by reference to a desirable characteristic or property, namely pKa-value (R3). The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. .../
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Box II.2

In the present case, the claims 1-9 so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Independent of the above reasoning, the claims 1-9 also lacks clarity as R3 is not considered to be clearly defined in claims 1 and 4-8 (Article 6 PCT). An attempt is made to define the compounds by reference to a result to be achieved.

In view of the large number and also the wording "suitable electron withdrawing" of the claims 1-9 presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT) to such an extent that a meaningful search on the basis of the claims is impossible.

Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the examples 1-51.

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Information on patent family members

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				AU	4322200	A	14/11/2000
				BR	0108677	A	12/11/2002
				BR	0108678	A	03/12/2002
				BR	0108679	A	26/11/2002
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				CA	2400293	A	30/08/2001
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				CZ	20022870	A	12/02/2003
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				EE	200200470	A	15/12/2003
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				PL	358281	A	09/08/2004
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